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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/590,919	06/09/2000	Joseph W. Fikes	04026.0013	3171 <i>CF</i>
7590	08/14/2002			
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EXAMINER PHAM, HOA Q				
ART UNIT PAPER NUMBER				
2877				

DATE MAILED: 08/14/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/590,919	FIKES ET AL.
Examiner	Art Unit	
Hoa Q. Pham	2877	

-- The MAILING DATE of this communication appars on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on \_\_\_\_ .

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-23 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1-5 and 7-23 is/are rejected.

7)  Claim(s) 6-8 is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)  The proposed drawing correction filed on \_\_\_\_\_ is: a)  approved b)  disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)  The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

14)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a)  The translation of the foreign language provisional application has been received.

15)  Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2

4)  Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 1, 2, 9-12, 14-15, and 21-23 are rejected under 35 U.S.C. 102(b) as being anticipated by Purcell (4,936,683).

Regarding claims 1 and 21-23, Purcell discloses an optical tablet construction comprises an elongated retro-reflective member (72), a first light source (17), a second light source (18), a first light sensor (19), a second light sensor (20) and a processor (44), for determining the position of target (10). See figures 4 and 6.

Regarding claim 2, see figure 6 for the first and second reflectors (71, 72).

Regarding claim 9, a frame (11) is used for mounting the first light source, second light source, first sensor, second sensor, and retro-reflective members. See figures 1 and 3.

Regarding claim 10, since the target is a cursor, thus the mouse is a holder.

Regarding claims 11-12, see abstract for linear image sensor and figure 4 for microprocessor.

Regarding claim 14, see column 7, lines 27-31 for visible or infrared light.

Regarding claim 15, see column 6, line 51, for CCD camera.

3. Claims 1, 2, 9-12, 14-15, and 21-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Bures (5,220,409).

Regarding claims 1 and 21-23, Bures discloses an apparatus and method for determining the position of an object comprises an elongated retro-reflective member (30, 44), a first light source (F.O.X), a second light source (F.O.Y), a first light sensor (X10L, X20R, etc....), a second light sensor (Y20L, Y20R, etc...) and a processor (not shown), for determining the position of target (S). See figures 2 and 6.

Regarding claim 2, see figures 2 and 6 for the first and second reflectors (30, 34, 44).

Regarding claim 9, it is inherent that a frame is used for mounting the first light source, second light source, first sensor, second sensor, and retro-reflective members.

Regarding claims 11-12 and 14-15, see column 8, lines 22-24 for light source and CCD camera.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-5, 13, 16-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Purcell or Bures in view of Butts (5,871,215).

Regarding claims 3-5, Purcell and Bures do not explicitly teach that the retro-reflective member comprises a plurality of corner reflectors, retro-reflective tape, or a plurality of glass beads. However, such a feature is known in the art, for example, as taught by Butts. Butts, from the same field of endeavor, teaches a plurality of corner cube reflectors (52) can be used as a retro-reflective member (column 6 lines 4-17). Those of ordinary skill in the art at the time the invention was made to replace the retro-reflective member of Purcell or Bures by a plurality of corner cube reflectors taught by Butts or a plurality of glass beads or retro-reflective tape as now claimed by the present invention. The rationale for this modification would have arisen from the fact that it does not matter what types of reflectors the device would function in the same manner. A substitution for each other is generally recognized as being within the level of ordinary skill in the art.

Regarding claims 13 and 16-20, Purcell and Bures teach that the light source is a lamp array and within the visible or infrared range. Those of ordinary skill in the art at the time the invention was made to replace the light source of Purcell or Bures by an

incandescent lamp and a curved mirror for reflecting light because they are function in the same manner.

***Allowable Subject Matter***

6. Claims 6-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tsikos (4,507,557) and Schwarz (5,789,739) disclose an apparatus for determining the position of an object.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa Q. Pham whose telephone number is (703) 308-4808. The examiner can normally be reached on 6:30 AM to 5 PM, Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (703) 308-4881. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



Hoa Q. Pham  
Primary Examiner  
Art Unit 2877

HP  
August 9, 2002